

Report on works presented by M. Marx.—Remarks on an eruption of the volcano Mayon in the Isle of Lucon, by the French Consul for the Philippines.—On the convergence of the coefficients in the development of the perturbation function, by M. A. Férand.—Remarks on a memoir of M. Massau on the graphical integration of some partial differential equations, by M. J. Coulon.—On a remarkable point in relation with the Joule-Thomson effect, by M. Daniel Berthelot. The point at which the inversion of the Joule-Thomson effect occurs is deduced by a graphical construction from the data of Amagat, and the result compared with some recent calculations of M. Van der Waals.—On the distribution of currents and potentials in the periodic state set up in the length of a symmetrical polyphase line presenting capacity, by M. Ch. Eug. Guye.—On resonance in wireless telegraphy, by M. A. Blondel.—Communication by wireless telegraphy with the aid of radio-conductors with polarised electrodes, by M. C. Tissot.—On anhydrous calcium dioxide and the constitution of its hydrates, by M. de Forcand. A thermochemical paper.—On some properties of aluminium, and on the preparation of gaseous hydrogen phosphide, by M. Camille Matignon. Details are given showing how to burn aluminium in steam, carbon monoxide and dioxide, oxides of nitrogen, formic acid, sulphur dioxide and other gases and vapours. The preparation of crystallised aluminium phosphide is described, from which pure PH_3 can be readily obtained.—Combinations of lithium bromide with ammonia, by M. J. Bonnefoi.—The compounds $LiBr.NH_3$, $LiBr.2NH_3$, $LiBr.3NH_3$, $LiBr.4NH_3$ are indicated by a study of the dissociation pressures. The application of the Clapyron formula to these data gives values for the heats of dissociation of these compounds in good agreement with the direct thermochemical measurements.—On two polysulphides of lead and copper, by M. F. Bodroux. The compounds PbS_2 and Cu_2S_2 are described.—On a mercury chlorosulphide, by M. F. Bodroux. A chlorosulphide, $Hg_2S_2.HgCl_2$, can be prepared, which is stable at ordinary temperatures.—Action of water upon mercurous sulphate, by M. Gouy.—Partial synthesis of levo-rotatory erythritol, by M. L. Maquenne. Wohl's method is applied to xylose, the steps being xylosoxime, acetylxyloxy nitrile, erythrose-acetamide, and erythrite.—Preparation of the dialkylamido-dichloranthraquinones, by M. E. C. Severin.—On a moniodohydrin of glycol, by MM. E. Charon and Paix-Séailles.—On γ -chloro-crotonic acid, by M. R. Lespieau. A description of the properties of $CH_2Cl.CH:CH.CO_2H$, its nitrile and ethyl ester.—On the composition of the albumen of the St. Ignatius bean and of the *nux vomica* bean, by MM. Em. Bourquelot and J. Laurent. The albumen from these beans yields the same carbohydrates, a mixture of a mannane and a galactane, as the albumen of leguminous beans previously studied. In *nux vomica* the proportion of galatose found on hydrolysis is very high. These beans, in fact, serve as an advantageous source of crystallised galatose.—Experimental researches upon the evolution of the lamprey, by M. E. Bataillon.—Remarks upon certain points in the life-history of the lower organisms, by M. J. Kunstler.—On some new Synclavellæ in the compound Ascidians, by M. Maurice Caullery.—Analysis of marine deposits collected off Brest, by M. J. Thoulet.—The mineral matters in the human foetus during the last five months of pregnancy, by M. L. Hugoncq.—Identity of a bacillus from milk with the pneumobacillus of Friedländer, by MM. L. Grimbret and G. Legros. The complete identity of these bacilli was shown by a comparative study of their general biology and morphology, and of their action upon carbohydrates.

DIARY OF SOCIETIES.

THURSDAY, MAY 31.

ROYAL SOCIETY, at 4.30.—Palaeolithic Man in Africa: Sir John Evans, F.R.S.—On the Estimation of the Luminosity of Coloured Surfaces used for Colour Discs: Sir W. de W. Abney, F.R.S.—The Sensitiveness of Silver and of some other Metals to Light: Major-General Waterhouse.—The Crystalline Structure of Metals (Second Paper): Prof. Ewing, F.R.S., and W. Rosenhain.—Vapour-density of Bromine at High Temperatures (Supplementary Note): Dr. E. P. Perman and G. A. S. Atkinson.

FRIDAY, JUNE 1.

ROYAL INSTITUTION, at 9.—Bunsen: Sir Henry Roscoe, F.R.S. GEOLOGISTS' ASSOCIATION, at 8.—Our Older Sea Margins: Sir Archibald Geikie, F.R.S.

TUESDAY, JUNE 5.

ANTHROPOLOGICAL INSTITUTE, at 8.30.—The Metric System of Identification used in Great Britain: Dr. J. G. Garson.

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WEDNESDAY, JUNE 6.

GEOLOGICAL SOCIETY, at 8.—Mechanically-formed Limestones from Junagadh and other Localities: Dr. J. W. Evans.—Note on the Consolidated Aolian Sands of Kathiawad: Frederick Chapman.—On Ceylon Rocks and Graphite: A. K. Coomara Swamy. SOCIETY OF PUBLIC ANALYSTS, at 8.—The Determination of Oxygen in Copper by Ignition in Hydrogen: Leonard Archbutt.—Uniformity in the Conduct of Soil Analysis: A. D. Hall.—The Adulteration of Wheat Flour with Maize: G. Embrey.—A New Colour Reaction for distinguishing between certain Isomeric Allyl and Propenyl Phenols: Alfred C. Chapman. ENTOMOLOGICAL SOCIETY, at 8.

THURSDAY, JUNE 7.

LINNEAN SOCIETY, at 8.—On a Viviparous Syllid Worm: E. S. Goodrich.—On the Genera *Phæzoneuron*, *Gilg*, and *Dicellandra*, Hook f.: Dr. A. Itapf.—On the Structure and Affinities of *Echivrus uncinatus*: Miss Embleton. CHEMICAL SOCIETY, at 8.—Diphenyl- and Diethyl-ethylenediamines, their Nitro-derivatives, Nitrates, and Mercuriochlorides: W. S. Mills.—Condensation of Ethyl Acetylenedicarboxylate with Bases and β -ketoic Esters: Dr. S. Ruhemann and H. E. Stapleton.—The Constitution of Pilocarpine: Dr. H. A. D. Jewett.—The Nitrogen Chlorides derivable from *m*-Chloroacetanilide and their Transformations: Dr. F. D. Chattaway, Dr. K. J. P. Orton, and W. H. Hurlley.—Derivatives of Cyanocamphor and Homocamphronic Acid: Dr. A. Lapworth. RÖNTGEN SOCIETY (St. Bartholomew's Hospital), at 8.—Dr. Lewis Jones will show an Influence Machine of American design.—Mr. James Wims-hurst, F.R.S., will give a short statement of his work in the design and the perfecting of the several forms of his Influence Machine.—Dr. Rényy, of Paris, will show a new Localising Apparatus.

FRIDAY, JUNE 8.

ROYAL INSTITUTION, at 9.—The Effect of Physical Agents on Bacterial Life: Dr. Allan Macfadyen. PHYSICAL SOCIETY, at 5.—On the Magnetic Properties of Iron and Aluminium Alloys, Part II.: Dr. S. W. Richardson.—Note on Crystallisation produced in Solid Metal by Pressure: W. Campbell.—On the Viscosity of Mixtures of Liquids and of Solutions: Dr. C. H. Leas. ROYAL ASTRONOMICAL SOCIETY, at 8.

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